KIDNEY INTERNATIONAL

Volume 17, Number 1, January 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

In situ immune complex formation and glomerular injury. *William G. Couser and David J. Salant* 1

LABORATORY INVESTIGATION

Amino acid therapy in the treatment of experimental acute renal failure in the rat. *Donald E. Oken, F. Murphy Sprinkel, Barry B. Kirschbaum, and Douglas M. Landwehr* 14

Effect of prostaglandin inhibition on sodium chloride reabsorption in the diluting segment of the conscious dog. *Jack Work, Richard W. Baehler, Theodore A. Kotchen, Ramish Talwalkar, and Robert G. Luke* 24

Control of the urine-blood P_{CO_2} gradient in alkaline urine. *Bobby J. Stinebaugh, Rafael Esquenazi, Francis X. Schloeder, Wadi N. Suki, Marc B. Goldstein, and Mitchell L. Halperin* 31

Parathyroid hormone-mediated aluminum deposition and egress in the rat. *Gilbert H. Mayor, Stuart M. Sprague, Michael R. Hourani, and Tom V. Sanchez* 40

Morphologic alterations in the rat medullary collecting duct following potassium depletion. *David L. Stetson, James B. Wade, and Gerhard Giebisch* 45

Adaptation of renal ammonia production in the diabetic ketoacidotic rat. *Leon Goldstein, Joan M. Boylan, and Helmut Schröck* 57

Effect of a heptapeptide angiotensin analog on aldosterone secretion in the rabbit. *Andre-Jacques Neusy, Marius Pessah, John M. Steele, and Jerome Lowenstein* 66

Electrophysiologic study of the cortical collecting tubule of the rabbit. *Michael J. Hanley, Juha P. Kokko, J. B. Gross, and Harry R. Jacobson* 74

CLINICAL INVESTIGATION

Separation and quantification of the "middle molecules" in uremia. *Graeme V. Chapman, Richard A. Ward, and Peter C. Farrell* 82

Prevalence, pathogenesis, and functional significance of aldosterone deficiency in hyperkalemic patients with chronic renal insufficiency. *Morris Schambelan, Anthony Sebastian, and Edward G. Biglieri* 89

Renal disease in familial dysautonomia. *John Pearson, Gloria Gallo, Melvin Gluck, and Felicia Axelrod* 102

HLA, atopy, and cyclophosphamide in steroid-responsive childhood nephrotic syndrome. *Richard S. Trompeter, T. Martin Barratt, Richard Kay, Malcolm W. Turner, and John F. Soothill* . 113

NEPHROLOGY FORUM

Hyperkalemia and hyporeninemic hypoaldosteronism. *Ralph A. DeFronzo* 118

SPECIAL REPORT

Need for faculty members in renal research in clinical departments: Report of the Scientific Advisory Board of the National Kidney Foundation, *Rex L. Jamison, Nancy B. Cummings, and Jay H. Stein* 135

ANNOUNCEMENTS 139

KIDNEY INTERNATIONAL

Volume 17, Number 2, February 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

The glomerular mesangium. *Alfred F. Michael, William F. Keane, Leopoldo Raij, Robert L. Vernier, S. Michael Mauer* 141

LABORATORY INVESTIGATION

Effect of flow rate and the extracellular fluid volume on proximal urate and water absorption. *Harry O. Senekjian, Thomas F. Knight, Steven C. Sansom, and Edward J. Weinman* 155

Intracellular distribution of carbonic anhydrase in the rat kidney. *Gudmar Lönnerholm and Yvonne Ridderstråle* 162

Three-dimensional characteristics of the mitochondria of the rat nephron. *Michael Bergeron, Dolores Guerette, Josette Forget, and Georges Thiery* 175

Role of plasma arginine vasopressin in the impaired water diuresis of isolated glucocorticoid deficiency in the rat. *Ira N. Mandell, Ralph A. DeFronzo, Gary L. Robertson, and John N. Forrest, Jr.* 186

On the mechanism of lithium-induced renal tubular acidosis: Studies in the turtle bladder. *Jose A. L. Arruda, George Dytko, Roger Mola, and Neil A. Kurtzman* 196

Urea and renal concentrating ability in the rabbit. *Robert A. Gunther and Lawrence Rabinowitz* . . 205

CLINICAL INVESTIGATION

Mechanisms of altered renal perfusion in the early stage of obstructive jaundice. *Akira Hishida, Nishio Honda, Mutsuo Sudo, and Mitsumasa Nagase* 223

Influence of middle-molecular-weight solutes from dialysate on the migration rate of leukocytes. *Tadeusz Cichocki, Zygmunt Hanicki, Andrzej Klein, Zofia Komorowska, Maria Sarnecka-Keller, and Władysław Sułowicz* 231

Serum ferritin assay and bone-marrow iron stores in patients on maintenace hemodialysis. *John D. Bell, William R. Kincaid, Richard G. Morgan, Harvey Bunce, III, Jack B. Alperin, Harry E. Sarles, and August R. Remmers, Jr.* 237

Change in alkaline phosphatase isoenzyme pattern in urine as possible marker for renal disease. *Gerhard Pfleiderer, Manfred Baier, Albrecht W. Mondorf, Teodor Stefanescu, Jürgen E. Scherberich, and Hildegard Müller* 242

NEPHROLOGY FORUM

Analgesic abuse and the kidney. *Priscilla Kincaid-Smith* 250

ANNOUNCEMENTS 261

KIDNEY INTERNATIONAL

Volume 17, Number 3, March 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

Escape from the sodium-retaining effects of mineralocorticoids. *Franklyn G. Knox, John C. Burnett, Jr., Donald E. Kohan, William S. Spielman, and James C. Strand* 263

LABORATORY INVESTIGATION

Regulation of prostaglandin E_2 synthesis by angiotensin II, potassium, osmolality, and dexamethasone. *Randall M. Zusman and Harry R. Keiser* 277

Tubulointerstitial immune complex nephritis in rats immunized with Tamm-Horsfall protein. *John R. Hoyer* 284

Preservation of renal function in experimental glomerulonephritis. *Malcolm L. Karlinsky, Lewis Haut, Bruce Buddington, Nancy A. Schrier, and Allen C. Alfrey* 293

Resin hemoperfusion in dogs intoxicated with ethchlorvynol (Placidyl®). *Michael J. Zmuda* 303

Changes in renal metabolic profile and ammoniagenesis during acute and chronic metabolic acidosis in dog and rat. *Patrick Vinay, Elisabeth Allignet, Carole Pichette, Malcolm Watford, Guy Lemieux, and André Gougoux* 312

Response of the collecting duct to disturbances of acid-base and potassium balance. *Gary R. Hansen, C. Craig Tisher, and Roscoe R. Robinson* 326

Enhanced recovery from acute renal failure by the postischemic infusion of adenine nucleotides and magnesium chloride in rats. *Norman J. Siegel, Wayne B. Glazier, Irshad H. Chaudry, Karen M. Gaudio, Bernard Lytton, Arthur E. Baue, and Michael Kashgarian* 338

CLINICAL INVESTIGATION

Hemodialysis partners. *Fred A. Bryan, Jr., and Roger W. Evans* 350

Temporal effects of hemodialysis on measures of neural efficiency. *Evan G. Lewis, William M. O'Neill, Robert E. Dustman, and Edward C. Beck* 357

Total body electrolyte composition and distribution of body water in uremia. *B. Lawrence Brennan, Seiichi Yasumura, Joseph M. Letteri, and Stanton H. Cohn* 364

Ultrastructure and function of cysts from human adult polycystic kidneys. *Francis E. Cuppage, Richard A. Huseman, Albert Chapman, and Jared J. Grantham* 372

Improving anemia by hemodialysis: Effect on serum erythropoietin. *Heinz W. Radtke, Ulrich Frei, Peter M. Erbes, Wilhelm Schoeppe, and Karl M. Koch* 382

NEPHROLOGY FORUM

Emotional dehiscence after successful renal transplantation. *Samuel H. Basch* 388

ABSTRACTS

The Society of Nephrology, German Speaking, October 7–10, 1979 397

Renal Association, October 24, 1979 419

ANNOUNCEMENTS 421

KIDNEY INTERNATIONAL

Volume 17, Number 4, April 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

Set point for sodium homeostasis: Surfeit, deficit, and their implications. *Norman K. Hollenberg* 423

LABORATORY INVESTIGATION

Lead intoxication during development: Its late effects on kidney function and blood pressure. *Abraham Aviv, Eunice John, Jay Bernstein, David I. Goldsmith, and Adrian Spitzer* 430

Morphometry of the renal corpuscle during postnatal growth and compensatory hypertrophy. *Giorgio Olivetti, Piero Anversa, Massimo Melissari, and Alden V. Loud* 438

Prostaglandin-independent protection by furosemide from oliguric ischemic renal failure in conscious rats. *Herbert J. Kramer, Joachim Schuurmann, Claus Wassermann, and Rainer Dusing* 455

Intrarenal renin, angiotensin II, and plasma renin in rats with uranyl nitrate-induced and glycerol-induced acute renal failure. *Frederick A. O. Mendelsohn and Elizabeth A. Smith* 465

Effects of parathyroid hormone and calcitonin on electrolyte excretion in the rabbit. *Theresa J. Berndt and Franklyn G. Knox* 473

Organic substrate effects on and heterogeneity of necturus proximal tubule function. *Jameson Forster, Paul S. Steels, and Emile L. Boulpaep* 479

Glomerular hemodynamics before and after release of 24-hour bilateral ureteral obstruction. *Antonio Dal Canton, Ariberto Corradi, Rodolfo Stanziale, Gianfrance Maruccio, and Luigi Migone* 491

CLINICAL INVESTIGATION

Feedback activation in rat nephrons by sera from patients with acute renal failure. *Peter F. Wunderlich, Felix P. Brunner, John M. Davis, Dieter A. Häberle, Heinrich Thölen, and Gilbert Thiel* 497

Albuminuria and the permselective properties of the glomerular in cardiac failure. *Brian J. Carrie, Mark Hilberman, John S. Schroeder, and Bryan D. Myers* 507

Tissue culture of isolated glomeruli from patients with glomerulonephritis. *Stephen R. Holdsworth, Robert C. Atkins, Eric F. Glasgow, and Napier M. Thomson* 515

Use of a new phosphate binder in chronic renal insufficiency. *Ernest Rutherford, Sue King, Betty Perry, Joan Blondin, Timothy Finley, Norbert Mason, Robert Sparks, and Eduardo Slatopolsky* . 528

Control of complement activation in membranous and membranoproliferative glomerulonephritis. *Hannah L. Mosely and Keith Whaley* 535

Circulating immune complexes in adults with idiopathic nephrotic syndrome. *Christine K. Abrass, Clive L. Hall, Wayne A. Border, C. Alan Brown, Richard J. Glassock, and Cecil H. Coggins.* . . . 545

NEPHROLOGY FORUM

Inappropriate antidiuretic hormone secretion of unknown origin. *Manuel Martinez-Maldonado* 554

ANNOUNCEMENTS 568

KIDNEY INTERNATIONAL

Volume 17, Number 5, May 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

Symptomatic hypotension during hemodialysis. *Lee W. Henderson* 571

LABORATORY INVESTIGATION

Renal bicarbonate reabsorption during bicarbonate loading. *Tom Monclair, Øystein Mathisen, and Fredrik Kiil* 577

Effect of insulinopenia and adrenal hormone deficiency on acute potassium tolerance. *Ralph A. DeFronzo, Robert Lee, Amy Jones, and Margaret Bia* 586

Adaptive change in ammonia excretion in renal insufficiency. *Alan J. Maclean and John P. Hayslett* 595

Sodium balance and renin regulation in rats: Role of intrinsic renal mechanisms. *Haruyuki Nakane, Yoko Nakane, Pierre Corvol, and Joël Menard* 607

Effect of blood pH on distal nephron hydrogen ion secretion. *Andre Gougoux, Patrick Vinay, Guy Lemieux, Robert M.A. Richardson, Siu-Cheung Tam, Marc B. Goldstein, Bobby J. Stinebaugh, and Mitchell L. Halperin* 615

Cholinergic inhibition of urinary acidification by the turtle bladder. *Jose A.L. Arruda and Sandra Sabatini* 622

In situ formation of subepithelial glomerular immune complexes in passive serum sickness. *Gertjan Fleuren, Joris Grond, and Philip J. Hoedemaeker* 631

CLINICAL INVESTIGATION

Role of humoral presensitization in human renal transplant rejection. *Peter Gailiunas, Jr., Manikkam Suthanthiran, George J. Busch, Charles B. Carpenter, and Marvin R. Garovoy* 638

Comparative study of an angiotensin-II analog and a converting enzyme inhibitor. *Robert H. Fagard, Antoon K. Amery, Paul J. Lijnen, Tony M. Reybrouck* 647

Patterns of urinary β_2-microglobulin excretion in patients treated with aminoglycosides. *Jerome J. Schentag and Martin E. Plaut* 654

Uric acid saturation in calcium nephrolithiasis, *Frederic L. Coe, Amy L. Strauss, Vrishali Tembe, and Siok LeDun* 662

Proteinuria and functional characteristics of the glomerular barrier in diabetic nephropathy. *Brian J. Carrie and Bryan D. Myers* 669

NEPHROLOGY FORUM

Renal osteodystrophy. *Jack W. Coburn* 677

ABSTRACTS

Italian Society of Nephrology, September 19–21, 1979 694

French Society of Nephrology, October 20, 1979 698

ANNOUNCEMENTS 707

KIDNEY INTERNATIONAL

Volume 17, Number 6, June 1980

Official Journal of the International Society of Nephrology

Le Journal de la Société Internationale de Néphrologie

Table of contents

EDITORIAL REVIEW

Determinants of ureagenesis, with particular reference to renal failure. *Mackenzie Walser* 709

LABORATORY INVESTIGATION

Renal toxicity of phosphate in rats. *Lewis L. Haut, Allen C. Alfrey, Stephen Guggenheim, Bruce Buddington, and Nancy Schrier* 722

Hydrostatic pressure changes related to paracellular shunt ultrastructure in proximal tubule. *Arvid B. Maunsbach and Emile L. Boulpaep* 732

Localization of parathyroid-hormone-independent sodium bicarbonate inhibition of tubular phosphate reabsorption. *Henri E. Kuntziger, Claude Amiel, Sylviane Couette, and Christiane Coureau* 749

Electron microprobe analysis of intracellular elements in the rat kidney. *Franz Beck, Richard Bauer, Ulrike Bauer, June Mason, Adolf Dörge, Roger Rick, and Klaus Thurau* 756

β_1-Adrenergic receptors in kidney tubular cell membrane in the rat. *Slava Gavendo, Shoshana Kapuler, Irina Serban, Adrian Iaina, Eitan Ben-David, Haskel Eliahou* 764

Proteinuric induced by sodium maleate in rats: Effects on ultrastructure and protein handling in renal proximal tubule. *Erik Ilso Christensen and Arvid B. Maunsbach* 771

Comparative effects of dietary phosphate, ulinlateral nephrectomy, and parathyroid hormone on phosphate transport by the rabbit proximal tubule. *Peter C. Brazy, J. Wade McKeown, Robert H. Harris, Vincent W. Dennis* 788

CLINICAL INVESTIGATION

Hemodynamic changes induced by regular hemodialysis and sequential ultrafiltration hemodialysis: A comparative study. *J.J. Rouby, J. Rottembourg, J.P. Durande, J.Y. Basset, P. Degoulet, P. Glaser, M. Legrain* 801

Mechanism and prevention of cardiac arrhythmias in chronic hemodialysis patients. *Gail Morrison, Eric L. Michelson, Steve Brown, Joel Morganroth* 811

Distribution of blood group antigen A in normal and pathologic human kidneys. *Jean Bariety, Raphaël Oriol, Nicole Hinglais, Maurizio Zanetti, Rosine Bretton, Anne-Marie Dalix, and Chantal Mandet* 820

Pathogenesis of renal disease in leptospirosis: Clinical and experimental studies. *Visith Sitprija, Vichitra Pipatanagul, Koesoemowardojo Mertowidjojo, Vijitr Broonpucknavig, and Somnate Boonpucknavig* 827

Effects of dietary intake and hemodialysis on protein turnover in uremic children. *Susan B. Conley, Gilbert M. Rose, Alan M. Robson, and Dennis M. Bier* 837

NEPHROLOGY FORUM

Renal failure in lymphoma. *Cecil H. Coggins* 847

ABSTRACTS

Swiss Society of Nephrology, December 8, 1979 856

Dutch Society of Nephrology, November 17, 1979 862

ANNOUNCEMENTS 867

INDEXES 872